



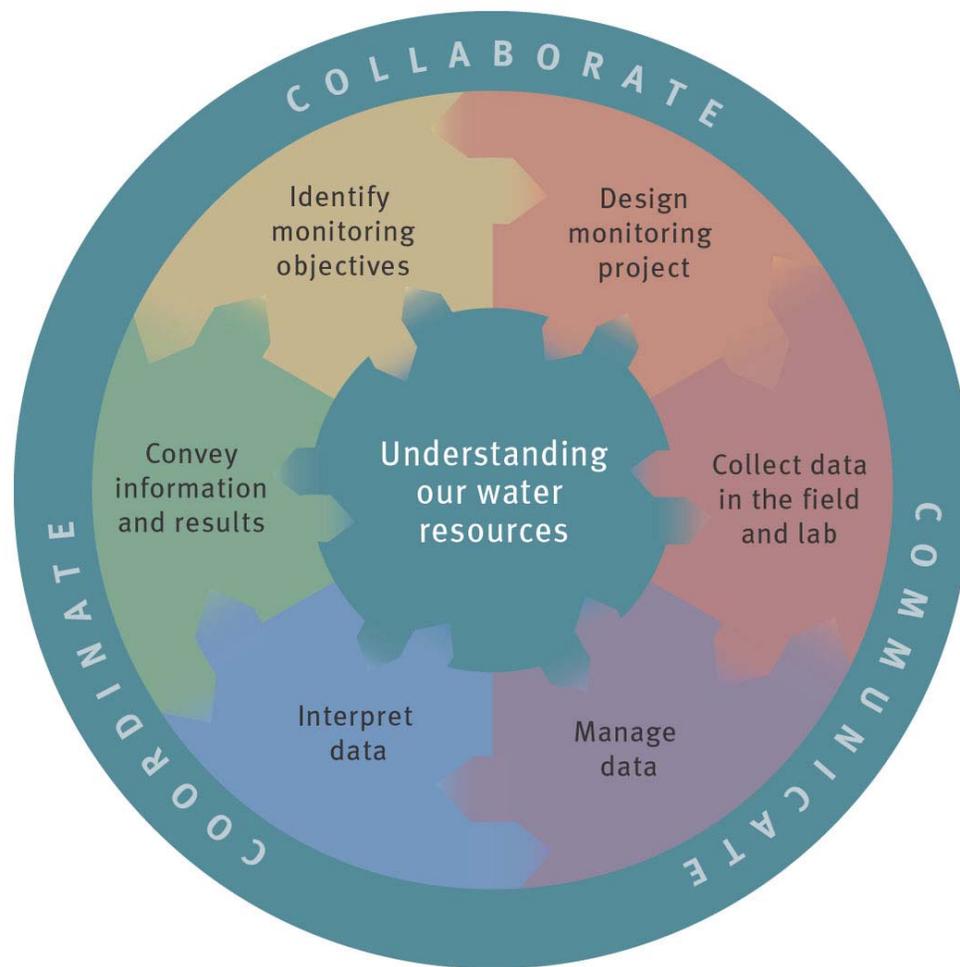
# NC Division of Water Quality Surface Water Monitoring



Jay Sauber  
919.733.9960  
ext 212

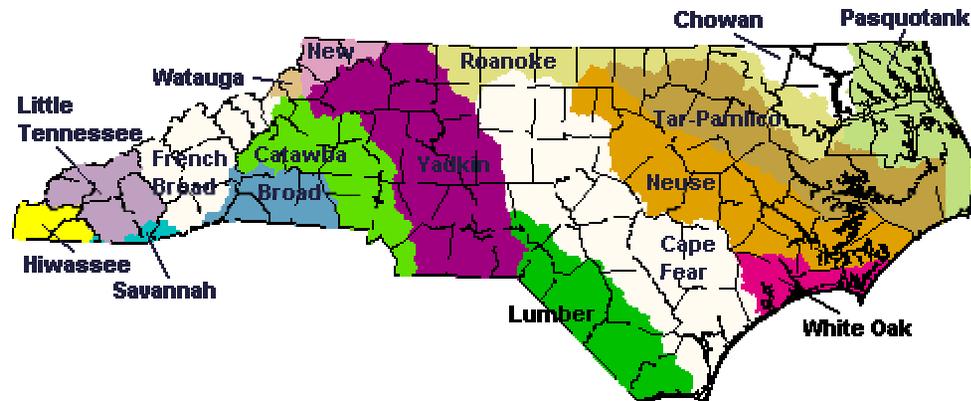


NATIONAL WATER QUALITY MONITORING COUNCIL  
*Working Together for Clean Water*



# NC Surface Waters

- ~ 37,000 miles of streams
- ~ 300,000 acres of lakes
- ~2,000,000 acres of estuaries

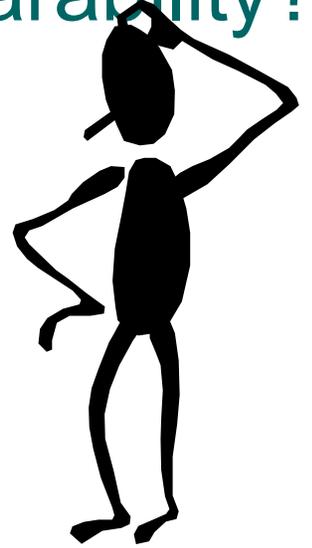


# NC Ambient Water Quality Monitoring

- 370 Stations monthly by 7 regions
- >100K observations per year ( 58K lab results)
- Data at some stations since 1970s
- Currently over 5,000,000 NC records

# Why Focus on Collaboration & Comparability?

Critical differences in project design, methods, data analysis, and data management make it difficult for monitoring information to be shared by more potential data users.



# NC DWQ Water Quality Tackle Box



- Algae and aquatic plants
- Ambient chemistry
- Aquatic toxicity
- Benthic macroinvertebrates
- Fish community
- Fish contaminants
- Lakes
- **NPDES Monitoring Coalitions**
- University - MODMON
- USGS – flow and Continuous

# **North Carolina – First State to Establish NPDES Monitoring Coalitions**

**The Strategy was first applied with  
Lower Neuse Basin Association**

# Discharger Monitoring Coalitions

- NPDES Permittees enter into a contract with DWQ to perform ambient WQ mon.
- Relieved of permit required monitoring
- Collective funding of contractor
- Strategic site selection vs.ups/downs

# Monitoring Coalitions

- ❖ Hire a contractor to collect and analyze samples
- ❖ Exemption from their NPDES permit's upstream/downstream sampling requirements.
- ❖ Cost effective savings and improved data collection
- ❖ Committees – Technical, Policy, Funding, Action

# Discharger Monitoring Coalitions

- Identify Monitoring Objectives
- Design Monitoring Program
- Collect Data in the Field and Lab
- Manage Data
- Interpret Data
- Convey Information and Results

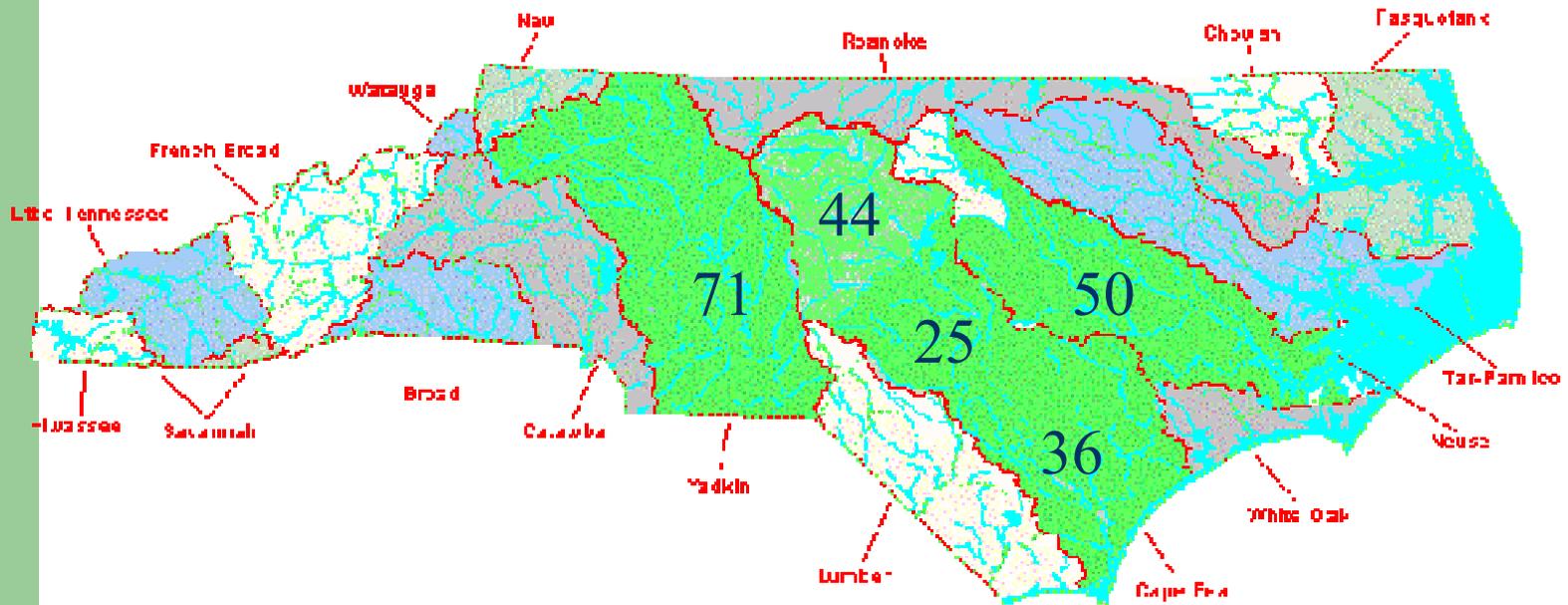
# Members of the Coalitions



- **Municipal WWTP's**
- **County WTP's**
- **Industrial Wastewater**
- **Military**

**University, COGs, Labs**

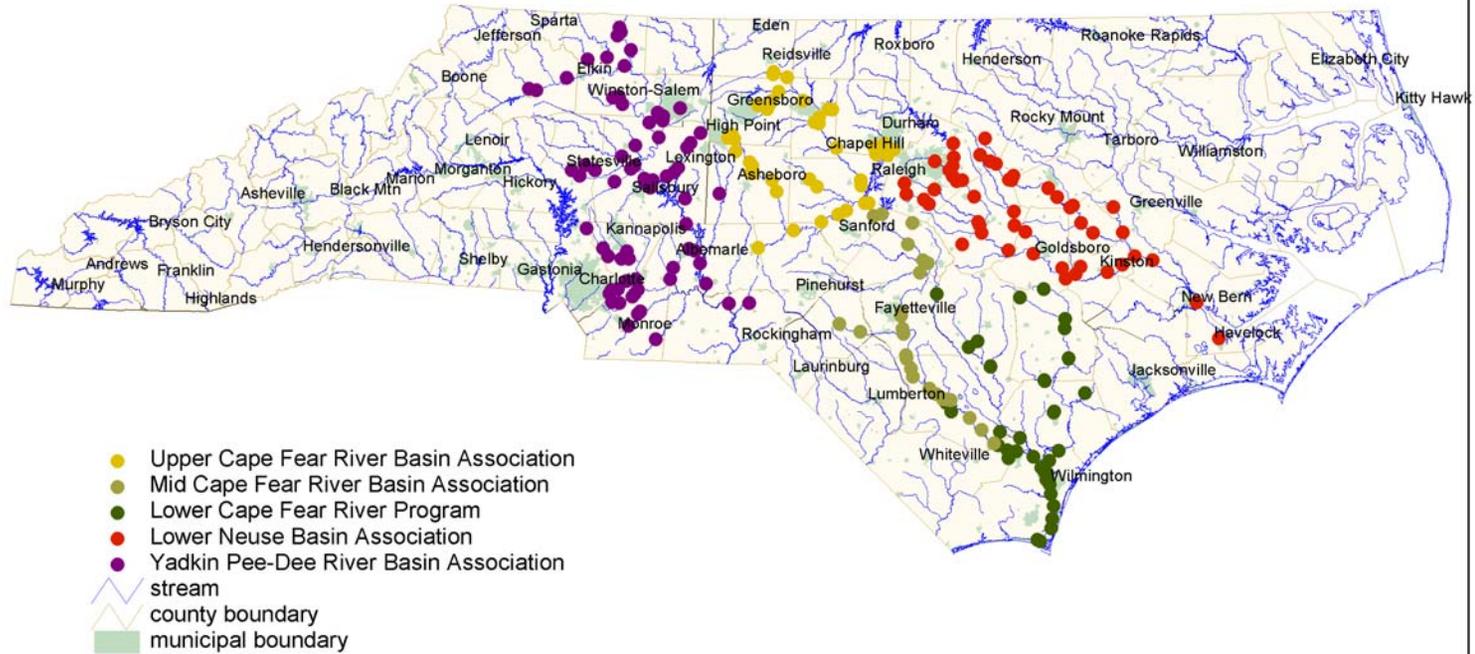
# Areas Covered by Monitoring Coalitions



# Status

- ❖ **5 Coalitions in Three River Basins**
- ❖ **125 Participating NPDES Permit Holders**
  - ❖ Municipalities and Industry
- ❖ **233 Water Quality Monitoring Stations**
  - ❖ Monthly Data & additional summer sampling field data
  - ❖ Additional funded projects
  - ❖ support for 2USGS Flow Stations

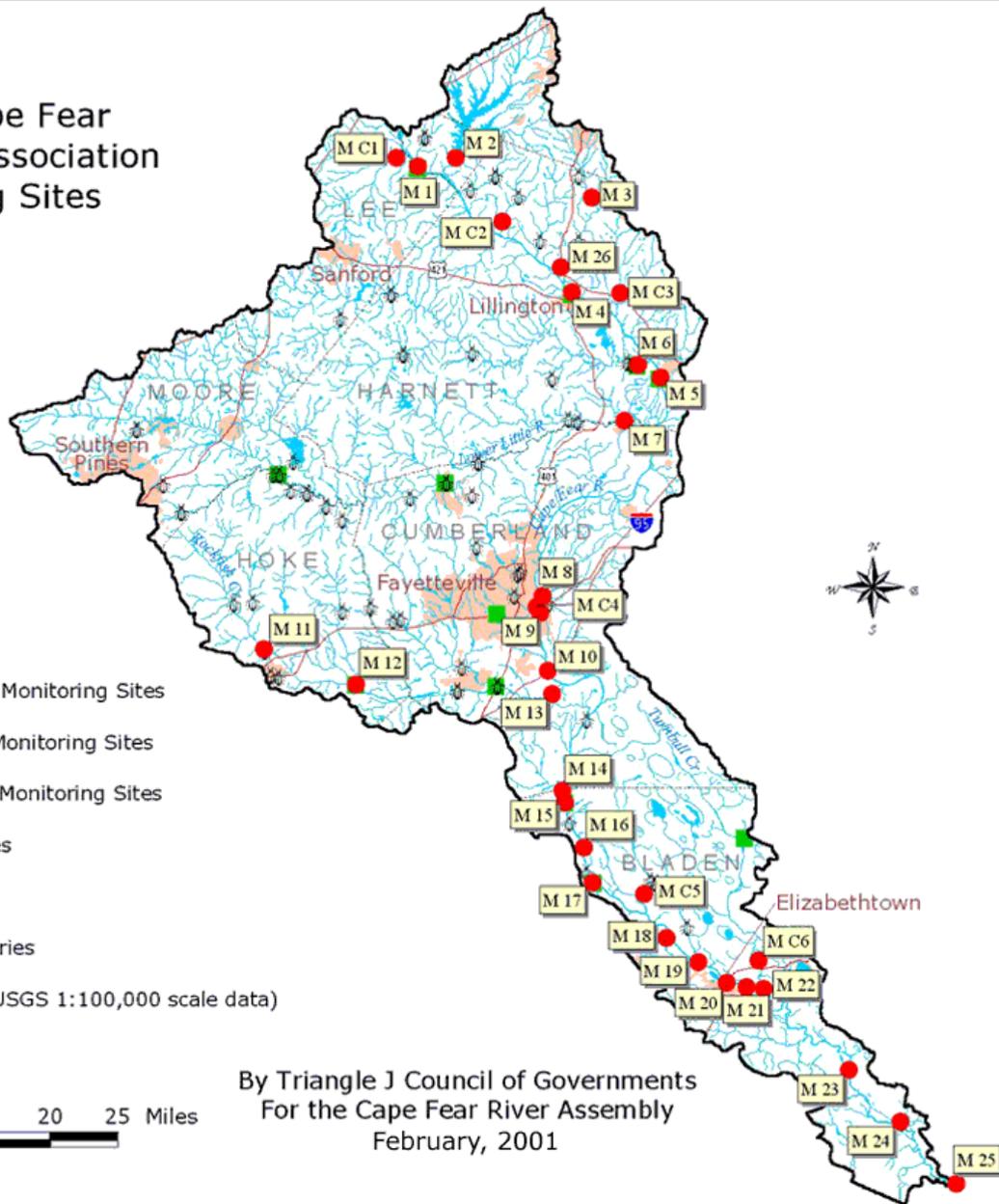
## Discharger Monitoring Coalition Water Quality Monitoring Stations



## Middle Cape Fear River Basin Association Monitoring Sites

### Legend

- Middle Cape Fear Monitoring Sites
-  NCDWQ Benthic Monitoring Sites
- NCDWQ Ambient Monitoring Sites
-  County Boundaries
-  Major Highways
-  Municipal Boundaries
-  Surface Waters (USGS 1:100,000 scale data)



5 0 5 10 15 20 25 Miles



By Triangle J Council of Governments  
For the Cape Fear River Assembly  
February, 2001

# 2003 - Major Coalition Activities

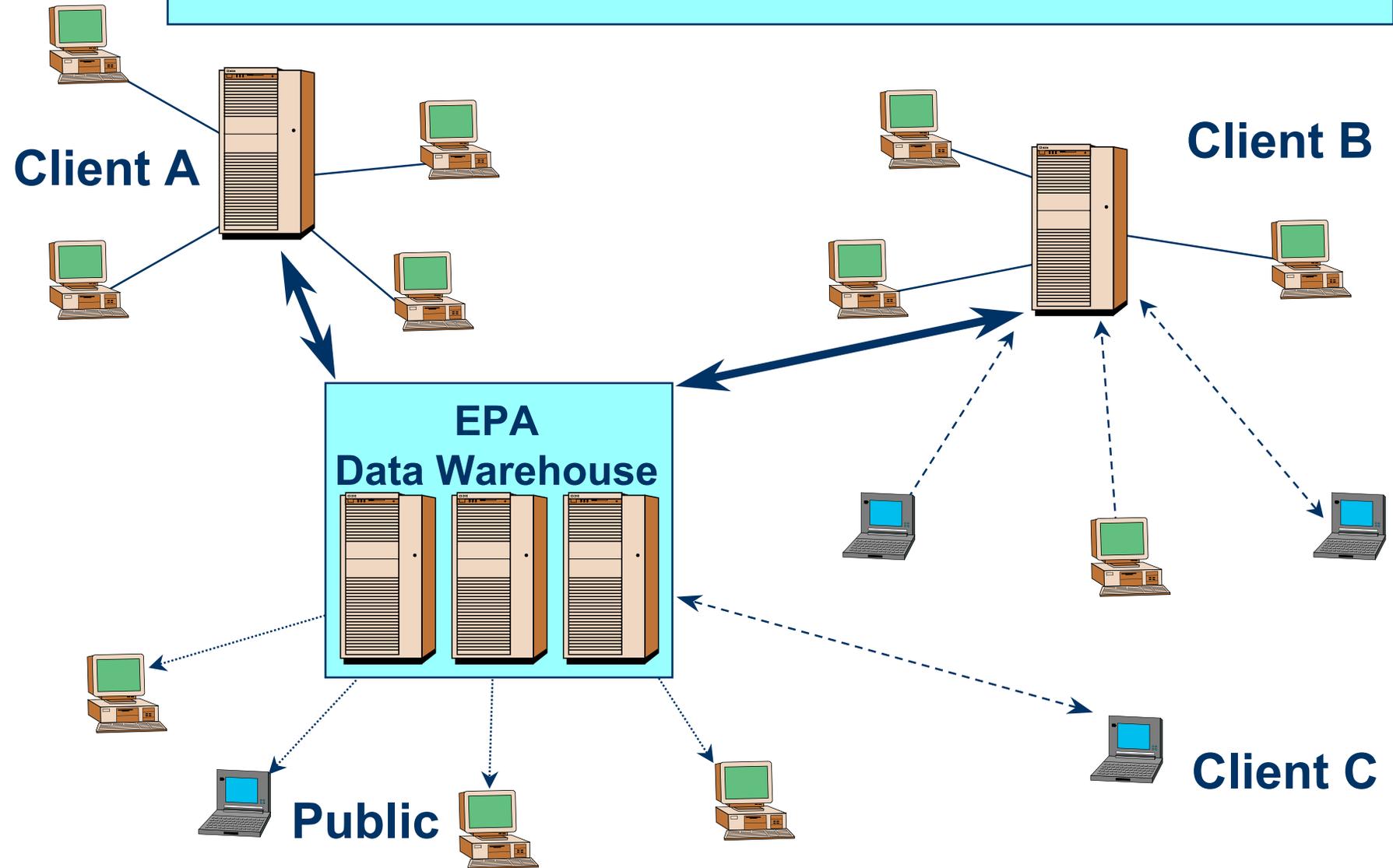
- ❖ New Coalition in the Tar/Pamilco River Basin
  - ❖ **Identify/Recruit Membership**
  - ❖ **Establish Locations and Parameters**

# **Design - EPA Wants it ALL**

## **But how do we pay for it ?**

- fixed station,
- intensive
- screening-level monitoring
- rotating basin
- judgmental
- probability design

# STORET National Architecture



# **NC Discharger Monitoring Coalitions**

## **QUESTIONS ?**

**● [www.esb.enr.state.nc.us/EU.html](http://www.esb.enr.state.nc.us/EU.html)**